OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SR417248

Foxc1 Mouse siRNA Oligo Duplex (Locus ID 17300)

Product data:

Product Type:	siRNA Oligo Duplexes
Purity:	HPLC purified
Quality Control:	Tested by ESI-MS
Sequences:	`Available with shipment`
Stability:	One year from date of shipment when stored at -20°C.
# of transfections:	Approximately 330 transfections/2nmol in 24-well plate under optimized conditions (final conc. 10 nM).
Note:	Single siRNA duplex (10nmol) can be ordered.
RefSeq:	NM_008592
UniProt ID:	Q61572
Synonyms:	ch; fkh-1; Fkh1; FREAC3; frkhda; Mf1; Mf4
Components:	Foxc1 (Mouse) - 3 unique 27mer siRNA duplexes - 2 nmol each (Locus ID 17300) Included - SR30004, Trilencer-27 Universal Scrambled Negative Control siRNA Duplex - 2 nmol Included - SR30005, RNAse free siRNA Duplex Resuspension Buffer - 2 ml

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Summary:

DNA-binding transcriptional factor that plays a role in a broad range of cellular and developmental processes such as eye, bones, cardiovascular, kidney and skin development (PubMed:9635428, PubMed:9106663, PubMed:10479458, PubMed:10395790, PubMed:11562355, PubMed:18187037, PubMed:19668217, PubMed:22493429, PubMed:24590069, PubMed:25808752, PubMed:28223138). Acts either as a transcriptional activator or repressor (PubMed:28223138). Binds to the consensus binding site 5'-[G/C][A/T]AAA[T/C]AA[A/C]-3' in promoter of target genes (PubMed:25808752). Upon DNA-binding, promotes DNA bending. Acts as a transcriptional coactivator (PubMed:25808752). Stimulates Indian hedgehog (Ihh)-induced target gene expression mediated by the transcription factor GLI2, and hence regulates endochondral ossification (PubMed:25808752). Acts also as a transcriptional coregulator by increasing DNA-binding capacity of GLI2 in breast cancer cells. Regulates FOXO1 through binding to a conserved element, 5'-GTAAACAAA-3' in its promoter region, implicating FOXC1 as an important regulator of cell viability and resistance to oxidative stress in the eye (By similarity). Cooperates with transcription factor FOXC2 in regulating expression of genes that maintain podocyte integrity (PubMed:28223138). Promotes cell growth inhibition by stopping the cell cycle in the G1 phase through TGFB1-mediated signals. Involved in epithelial-mesenchymal transition (EMT) induction by increasing cell proliferation, migration and invasion (By similarity). Involved in chemokine CXCL12-induced endothelial cell migration through the control of CXCR4 expression (PubMed:18187037). Plays a role in the gene regulatory network essential for epidermal keratinocyte terminal differentiation (By similarity). Essential developmental transcriptional factor required for mesoderm-derived tissues formation, such as the somites, skin, bone and cartilage (PubMed:9106663, PubMed:10479458, PubMed:10395790, PubMed:10704385, PubMed:11562355, PubMed:15196959). Positively regulates CXCL12 and stem cell factor expression in bone marrow mesenchymal progenitor cells, and hence plays a role in the development and maintenance of mesenchymal niches for haematopoietic stem and progenitor cells (HSPC) (PubMed:24590069). Plays a role in corneal transparency by preventing both blood vessel and lymphatic vessel growth during embryonic development in a VEGF-dependent manner (PubMed:22171010). May function as a tumor suppressor (By similarity).[UniProtKB/Swiss-Prot Function]

Performance Guaranteed:

OriGene guarantees that at least two of the three Dicer-Substrate duplexes in the kit will provide at least 70% or more knockdown of the target mRNA when used at 10 nM concentration by quantitative RT-PCR when the TYE-563 fluorescent transfection control duplex (cat# SR30002) indicates that >90% of the cells have been transfected and the HPRT positive control (cat# SR30003) provides 90% knockdown efficiency.

For non-conforming siRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the siRNA kit. To arrange for a free replacement with newly designed duplexes, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled siRNA control (quantitative RT-PCR data required).